

WHAT IS CLAIMED IS:

1. A semiconductor memory having a function of protecting data stored in a nonvolatile semiconductor memory, the semiconductor memory comprising:

5 a volatile protection state specification section for controlling the protection state of data in the nonvolatile semiconductor memory; and

 a nonvolatile initial state store section for controlling the initial state of the protection state
10 specification section.

2. The semiconductor memory according to claim 1, wherein the protection state specification section includes one bit and determines the protection state of
15 data by one or zero, further wherein the initial state store section includes one bit and determines the initial state by one or zero.

3. The semiconductor memory according to claim 1,
20 wherein the protection state specification section is located for each of sectors in the nonvolatile semiconductor memory, further wherein the initial state store section is located for each of the protection state specification sections.

25 4. The semiconductor memory according to claim 1, wherein the number of the initial state store section

located for the plurality of the protection state specification sections is one.

5 5. The semiconductor memory according to claim 1,
further comprising a volatile protection state lock section for locking the state of the protection state specification sections.

10 6. The semiconductor memory according to claim 5,
wherein the protection state lock section includes one bit and determines by one or zero whether to lock the protection state of data.

15 7. The semiconductor memory according to claim 5,
further comprising a second nonvolatile initial state store section for determining an initial state of the protection state lock section.

20 8. The semiconductor memory according to claim 7,
wherein the second initial state store section includes one bit and determines by one or zero whether to lock the protection state of data.

25 9. The semiconductor memory according to claim 5,
wherein a security level is divided into two stages on the basis of whether the protection state of data is locked by the protection state lock section, further wherein

authentication with a password is performed to change the protection state of data from a locked state to a non-locked state.